

IN THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the application.

1-20. (Canceled)

21. (Withdrawn) An isolated polypeptide selected from the group consisting of:

- a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2,
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO:1,
- c) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence SEQ ID NO:2, and
- d) an immunogenic fragment consisting of at least 20 contiguous amino acid residues of an amino acid sequence of SEQ ID NO:2.

22. (Withdrawn) An isolated polypeptide of claim 21 comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.

23. (Currently Amended) An isolated polynucleotide encoding a polypeptide ~~of claim 21~~
selected from the group consisting of:

- a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2,
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO:1, said polypeptide having antigen binding activity
- c) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:2, said polypeptide having GTPase effector activity,
- d) an immunogenic fragment consisting of at least 20 contiguous amino acid residues of an amino acid sequence of SEQ ID NO:2,

- e) a biologically active fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:1, said fragment having antigen binding activity, and
- f) a biologically active fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, said fragment having GTPase effector activity.

24. (Canceled)

25. (Currently Amended) An isolated polynucleotide of claim ~~24~~ 23 comprising a polynucleotide sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:4.

26. (Previously Presented) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 23.

27. (Previously Presented) A cell transformed with a recombinant polynucleotide of claim 26.

28. (Currently Amended) A method of producing a polypeptide of ~~claim 21~~, the method comprising:

- a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide ~~encoding the polypeptide~~ of claim ~~21~~ 23, and
- b) recovering the polypeptide so expressed.

29. (Previously Presented) A method of claim 28, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.

30. (Previously Presented) An isolated polynucleotide selected from the group consisting of:

- a) a polynucleotide comprising a polynucleotide sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:4,
- b) a polynucleotide comprising a naturally occurring polynucleotide sequence at least 90% identical to a polynucleotide sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:4,
- c) a polynucleotide complementary to a polynucleotide of a),
- d) a polynucleotide complementary to a polynucleotide of b), and
- e) an RNA equivalent of a)-d).

31. (Previously Presented) An isolated polynucleotide comprising at least 60 contiguous nucleotides of a polynucleotide of SEQ ID NO:4.

32. (Withdrawn) A method of detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 30, the method comprising:

- a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

33. (Withdrawn) A method of claim 32, wherein the probe comprises at least 60 contiguous nucleotides.

34. (Withdrawn) A method of detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 30, the method comprising:

- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and

- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

35. (Withdrawn) A composition comprising a polypeptide of claim 21 and a pharmaceutically acceptable excipient.

36. (Withdrawn) A composition of claim 35, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.

37. (Withdrawn) A method for treating a disease or condition associated with decreased expression of functional BMDSP, comprising administering to a patient in need of such treatment the composition of claim 35.

38. (Withdrawn) A method of screening for a compound that specifically binds to the polypeptide of claim 21, the method comprising:

- a) combining the polypeptide of claim 21 with at least one test compound under suitable conditions, and
- b) detecting binding of the polypeptide of claim 21 to the test compound, thereby identifying a compound that specifically binds to the polypeptide of claim 21.

39. (Withdrawn) A method of screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a sequence of claim 25, the method comprising:

- a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,
- b) detecting altered expression of the target polynucleotide, and
- c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

40. (Withdrawn) A method of assessing toxicity of a test compound, the method comprising:

- a) treating a biological sample containing nucleic acids with the test compound,
- b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 30 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 30 or fragment thereof,
- c) quantifying the amount of hybridization complex, and
- d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

41. (Withdrawn) A microarray wherein at least one element of the microarray is a polynucleotide of claim 23.

42. (Withdrawn) A method of generating an expression profile of a sample which contains polynucleotides, the method comprising:

- a) labeling the polynucleotides of the sample,
- b) contacting the elements of the microarray of claim 41 with the labeled polynucleotides of the sample under conditions suitable for the formation of a hybridization complex, and
- c) quantifying the expression of the polynucleotides in the sample.

43. (Withdrawn) An isolated antibody which specifically binds to a polypeptide of claim 21.

44. (Withdrawn) The antibody of claim 43, wherein the antibody is:

- a) a chimeric antibody,
- b) a single chain antibody,
- c) a Fab fragment,
- d) a F(ab')₂ fragment, or
- e) a humanized antibody.

45. (Withdrawn) A composition comprising an antibody of claim 43 and an acceptable excipient.